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TRITTON OPERATIONS

Tritton and Girilambone Operations

Monthly Environmental Monitoring Report

June 2016

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YARRANDALE ROAD, HERMIDALE, NSW, 2831

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BOORAMUGGA ROAD, GIRILAMBONE, NSW, 2831

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JUNE 2016 [YEAR] – GROUNDWATER MONITORING REPORT
TRITTON OPERATIONS LICENCE NO.11254

Licensee: TRITTON RESOURCES LIMITED					
EPL No. 11254					
Sample Point	Monitoring Frequency	Date	Parameter	Measurement	Unit
EPA ID No. 25 - PZH017	Quarterly	Sampled: 7/6/16	Arsenic	<0.001	mg/L
			Barium	0.036	mg/L
			Beryllium	<0.001	mg/L
		Obtained: 30/6/16	Cadmium	<0.0001	mg/L
			Chloride	3160	mg/L
			Chromium	<0.001	mg/L
		Published: 15/07/2016	Cobalt	<0.001	mg/L
			Conductivity (EC)	11700	µS/cm
			Copper	0.002	mg/L
			Iron	2.08	mg/L
			Lead	<0.001	mg/L
			Manganese	0.119	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.001	mg/L
			pH	7.31	pH Unit
			Sulfate	836	mg/L
			Vanadium	<0.01	mg/L
Zinc	0.018	mg/L			
SWL	48.22	m			
EPA ID No. 26 - PZH018	Quarterly	Sampled: 14/6/16	Arsenic	<0.001	mg/L
			Barium	0.029	mg/L
			Beryllium	<0.001	mg/L
		Obtained: 30/6/16	Cadmium	<0.0001	mg/L
			Chloride	7540	mg/L
			Chromium	<0.001	mg/L
		Published: 15/07/2016	Cobalt	0.002	mg/L
			Conductivity (EC)	25300	µS/cm
			Copper	0.004	mg/L
			Iron	0.76	mg/L
			Lead	<0.001	mg/L
			Manganese	0.276	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.003	mg/L
			pH	7.42	pH Unit
			Sulfate	2330	mg/L
			Vanadium	<0.01	mg/L
Zinc	0.032	mg/L			
SWL	22.43	m			

EPA ID No. 27 - PZH019	Quarterly	Sampled: 7/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.023 0.026 <0.001 <0.0001 2930 <0.001 0.003 10800 0.003 4.6 <0.001 0.044 <0.0001 0.012 7.81 784 <0.01 0.014 102.91	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 28 - PZH020	Quarterly	Sampled: 14/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.001 0.02 <0.001 0.0005 3450 0.001 <0.001 12800 0.024 0.06 <0.001 0.035 <0.0001 0.004 7.34 1080 <0.01 0.097 72.04	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 29 - PZH021	Quarterly	Sampled: 14/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC)	<0.001 0.074 <0.001 0.0002 4370 <0.001 <0.001 15600	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm

			Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.003 0.4 <0.001 1.91 <0.0001 <0.001 7.38 1420 <0.01 0.02 58.42	mg/L mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 30 - PZH022	Quarterly	Sampled: 14/6/16 Obtained: D/M/Y Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	DRY	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 31 - PZH023	Quarterly	Sampled: 14/6/16 Obtained: D/M/Y Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate	DRY	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L mg/L pH Unit mg/L

			Vanadium Zinc SWL		mg/L mg/L m
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JUNE 2016 – GROUNDWATER MONITORING REPORT GIRILAMBONE OPERATIONS LICENCE NO.4501

Licensee: TRITTON RESOURCES LIMITED					
EPL No. 4501					
Sample Point	Monitoring Frequency	Date	Parameter	Measurement	Unit
EPA ID No. 2 - GIP224	Monthly	Sampled: 29/6/16	Arsenic	<0.010	mg/L
			Barium	0.024	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 8/7/16	Cadmium	<0.0010	mg/L
			Chloride	8300	mg/L
			Chromium	<0.010	mg/L
		Published: 15/07/2016	Cobalt	<0.010	mg/L
			Conductivity (EC)	31400	µS/cm
			Copper	0.031	mg/L
			Iron	<0.10	mg/L
			Lead	<0.010	mg/L
			Manganese	0.092	mg/L
			Mercury	<0.0001	mg/L
			Nickel	<0.010	mg/L
			pH	6.66	pH Unit
			Sulfate	4130	mg/L
			Vanadium	<0.10	mg/L
Zinc	0.059	mg/L			
SWL	5.31	m			
EPA ID No. 3 - GIP225	Monthly	Sampled: 24/6/16	Arsenic	<0.010	mg/L
			Barium	0.051	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 30/6/16	Cadmium	0.0022	mg/L
			Chloride	5620	mg/L
			Chromium	<0.010	mg/L
		Published: 15/07/2016	Cobalt	0.026	mg/L
			Conductivity (EC)	33200	µS/cm
			Copper	0.024	mg/L
			Iron	0.7	mg/L
			Lead	<0.010	mg/L
			Manganese	1.08	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.025	mg/L
			pH	6.91	pH Unit
			Sulfate	16700	mg/L
			Vanadium	<0.10	mg/L
Zinc	0.093	mg/L			
SWL	11.47	m			

EPA ID No. 7 - GIP274	Monthly	Sampled: 8/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 0.015 <0.010 <0.0010 9720 <0.010 <0.010 32200 <0.010 <0.10 <0.010 0.055 <0.0001 <0.010 6.98 2880 <0.10 <0.050 17.73	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 12 - GIP290	Monthly	Sampled: 7/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.001 0.019 <0.001 0.0253 3400 <0.001 0.116 16500 0.18 0.07 0.006 12.4 <0.0001 0.022 7.29 4530 <0.01 0.454 15.39	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 13 - GIP291	Monthly	Sampled: 7/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC)	<0.010 0.022 <0.010 <0.0010 7840 <0.010 <0.010 26700	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm

			Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.041 0.12 <0.010 0.1 <0.0001 <0.010 7.11 2740 <0.10 0.078 9.61	mg/L mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 14 - GIP292A	Monthly	Sampled: 8/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	0.081 <0.010 0.081 2.71 2550 0.069 43.7 33300 209 109 <0.010 453 0.0001 15 5.01 34300 <0.10 197 6.22	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 16 - GIP292AS	Monthly	Sampled: 8/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate	0.262 <0.010 0.631 8.28 1540 0.247 106 36000 1300 1680 0.026 778 0.0005 34.1 4.74 59100	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L

			Vanadium	1.56	mg/L
			Zinc	627	mg/L
			SWL	6.35	m
EPA ID No. 17 - GIP293	Monthly	Sampled: 20/6/16	Arsenic	0.012	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 30/6/16	Cadmium	1.88	mg/L
			Chloride	4250	mg/L
			Chromium	<0.010	mg/L
		Published: 15/07/2016	Cobalt	23.9	mg/L
			Conductivity (EC)	42000	µS/cm
			Copper	31.5	mg/L
			Iron	0.64	mg/L
			Lead	<0.010	mg/L
			Manganese	538	mg/L
			Mercury	0.0007	mg/L
			Nickel	8.74	mg/L
			pH	4.26	pH Unit
			Sulfate	37000	mg/L
			Vanadium	<0.10	mg/L
Zinc	96.1	mg/L			
SWL	13.71	m			
EPA ID No. 18 - GIP294	Monthly	Sampled: 21/6/16	Arsenic	0.014	mg/L
			Barium	<0.010	mg/L
			Beryllium	<0.010	mg/L
		Obtained: 30/6/16	Cadmium	3.23	mg/L
			Chloride	1940	mg/L
			Chromium	<0.010	mg/L
		Published: 15/07/2016	Cobalt	38.2	mg/L
			Conductivity (EC)	49300	µS/cm
			Copper	151	mg/L
			Iron	0.12	mg/L
			Lead	<0.010	mg/L
			Manganese	258	mg/L
			Mercury	0.0009	mg/L
			Nickel	12.4	mg/L
			pH	4.73	pH Unit
			Sulfate	48000	mg/L
			Vanadium	<0.10	mg/L
Zinc	218	mg/L			
SWL	13.43	m			
EPA ID No. 19 - GIP295	Monthly	Sampled: 7/6/16	Arsenic	<0.010	mg/L
			Barium	0.046	mg/L
		Obtained: 30/6/16	Beryllium	<0.010	mg/L
			Cadmium	0.0002	mg/L
			Chloride	9100	mg/L

		Published: 15/07/2016	Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 0.007 30000 0.012 <0.10 <0.010 0.68 <0.0001 <0.010 7.24 2550 <0.10 0.02 18.43	mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 20 - GIP296	Monthly	Sampled: 21/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.001 0.013 <0.001 0.0002 1930 0.002 0.001 17700 0.033 0.06 <0.001 0.021 0.0001 0.007 6.7 7100 <0.01 0.067 8.31	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 21 - GIP297	Monthly	Sampled: 7/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury	0.006 <0.001 <0.001 <0.0001 66 <0.001 <0.001 996 0.003 <0.05 <0.001 <0.001 <0.0001	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L

			Nickel pH Sulfate Vanadium Zinc SWL	<0.001 6.97 171 <0.01 <0.005 25.52	mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 22 - GIP298	Monthly	Sampled: 20/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 <0.010 <0.010 0.0017 9590 <0.010 <0.010 31200 0.011 <0.10 <0.010 0.124 <0.0001 <0.010 6.46 2720 <0.10 <0.050 21.52	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 23 - GIP299	Monthly	Sampled: 7/6/16 Obtained: 30/6/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 <0.010 <0.010 0.0036 7360 <0.010 <0.010 31400 0.015 <0.10 <0.010 0.04 0.0001 <0.010 6.25 8760 <0.10 <0.050 27.39	mg/L mg/L mg/L mg/L mg/L mg/L mg/L µS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 24 -	Monthly	Sampled: 21/6/16	Arsenic Barium	<0.010 0.03	mg/L mg/L

GIP300		Obtained: 30/6/16 Published: 15/07/2016	Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.010 0.0038 9560 0.021 0.019 33900 0.105 0.2 <0.010 0.666 <0.0001 0.033 6.62 5170 <0.10 0.1 19.81	mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L mg/L m
EPA ID No. 25 - GIP301	Monthly	Sampled: 29/6/16 Obtained: 8/7/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron Lead Manganese Mercury Nickel pH Sulfate Vanadium Zinc SWL	<0.001 0.034 <0.001 0.0007 4440 <0.001 <0.001 17400 0.036 <0.05 <0.001 0.102 <0.0001 0.005 6.84 2120 <0.01 0.078 15.37	mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L mg/L mg/L mg/L pH Unit mg/L mg/L mg/L m
EPA ID No. 26 - GIP302	Monthly	Sampled: 21/6/16 Obtained: 8/7/16 Published: 15/07/2016	Arsenic Barium Beryllium Cadmium Chloride Chromium Cobalt Conductivity (EC) Copper Iron	<0.010 0.016 <0.010 0.0027 6020 <0.010 0.099 31100 <0.010 0.61	mg/L mg/L mg/L mg/L mg/L mg/L mg/L μS/cm mg/L mg/L

			Lead	0.016	mg/L
			Manganese	19.9	mg/L
			Mercury	<0.0001	mg/L
			Nickel	0.112	mg/L
			pH	6.09	pH Unit
			Sulfate	13600	mg/L
			Vanadium	<0.10	mg/L
			Zinc	0.053	mg/L
			SWL	15.91	m